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ABSTRACT

Project Effective Transition of the Bilingual and Bicultural Student to Senior High School (ETBBS) at Thomas Jefferson High School in Brooklyn, New York, provided additional administrative and instructional staff in order to offer instructional services to 16% foreign born students, mostly from Puerto Rico and Haiti. The program was designed to develop English proficiency, and offered instruction in native language arts, social studies, mathematics, and science. This report describes the 1981-82 implementation of the program and discusses the sources of funding, participants, program content, instructional and noninstructional components, parent involvement, and staff development. Analysis of student achievement indicates that: (1) students gained on reading ability of Spanish but failed to achieve the program objective in this area; (2) the program objective for science was met but performance for mathematics and social studies fell short of the goal; and (3) attendance rates of the participants were better than those of nonparticipants. Recommendations include more encouragement for teachers to serve as linguistic models and more confidential counseling and guidance services for students.(AOS)

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O.E.E. Evaluation Report

February, 1983

THOMAS JEFFERSON HIGH SCHOOL
EFFECTIVE TRANSITION OF THE BILINGUAL AND BICULTURAL STUDENT TO SENIOR HIGH SCHOOL
1981-1982

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A SUMMARY OF THE EVALUATION OF PROJECT EFFECTIVE TRANSITION OF THE BILINGUAL AND BICULTURAL STUDENT TO TO SENIOR HIGH SCHOOL THOMAS JEFFERSON HIGH SCHOOL 1981-1982

This project, in its fourth and final year of funding, provided additional administrative and instructional staff to the school's existing bilingual program. Prior to this funding, Thomas Jefferson served its limited English proficiency students with E.S.L. courses, and offered bilingual instruction in native language arts, social studies, mathematics and science to Spanish-dominant students. All 165 project participants were foreign-born: 95 percent were Spanish-speaking and 5 percent were French/Creole-speaking students from Haiti. Over half the Spanish speakers were from Puerto Rico. Hispanic students used both Spanish and English; most spoke Spanish at home and English outside the home. Project students varied in native-language ability, proficiency in English, and overall academic preparedness.

Although the program has no specifically-stated goals, its general philosophy is transitional with the purpose of teaching students to function effectively in English in preparation for high school graduation requirements. The program also stressed awareness of students' cultural heritages and the development of positive self-identities as a means of promoting academic achievement. The program has no formulated criteria for mainstreaming its students.

Project E.T.B.B.S. combined three sources of funding: Title VII funds supported administrative and support services staff; instructional services were provided by Title I and tax-levy funds. Curriculum materials were adapted and developed in mathematics. No materials developed by other programs were used at Thomas Jefferson. Supportive services to program students included academic, career, and personal counseling from both school and program staff. No home visits took place after the second year of funding; telephone calls to parents replaced such visits. Development activities for staff members included monthly lesson-planning workshops held in conjunction with departmental meetings and attendance at outside workshops, conferences, and university courses. Parental participation in school-wide and program activities was hampered by the character of the neighborhood -- parents often feared attending school functions held at night -- and by employment and familial responsibilities. However, parents of bilingual program students showed a greater tendency to become involved in activities, especially when their contributions could be made at home.

Students were assessed in English-language development (Criterion Referenced English Syntax Test); growth in their mastery of Spanish (Inter-american Series, La Prueba de Lectura); mathematics (teacher-made tests and the New York City Title I Criterion Referenced Mathematics Test); science and social studies (teacher-made tests); and attendance (school and program records). Quantitative analysis of student achievement indicated that:

--On the average, students mastered more than one objective per month of instruction as measured by the CREST and succeeded in achieving the criterion set as the objective for students in Title I E.S.L. classes.

--In native language reading ability, students in general showed gains on the Prueba de Lectura which were moderately significant statistically and highly significant educationally and met the criterion set as the program objective.

--Overall, students who took teacher-made examinations in native language arts (Spanish) came close to but did not reach the program objective of 65 percent passing.

--In general, students who took final examinations in science meet the program objective of at least 65 percent passing. However, students failed to meet this criterion in mathematics and social studies.

--On the average, students pre- and post-tested with the High School Title I Mathematics Skills Program Test showed gains which were highly significant statistically and educationally.

--The average attendance rate of program students surpassed that of the school by 21.6 percentage points.

The following recommendations were aimed at providing services for the target population after the project's end and at planning future programs to serve these students:

--Active participation by the project coordinator in the dissemination of the goals and achievements of the program to mainstream faculty through staff meetings, memoranda, etc., in order to facilitate more effective communication;

--Encouraging teachers to serve as effective linguistic models in both Spanish and English;

--Assigning staff members to classes within their area of license and, when possible, recruiting experienced bilingual teachers;

--The initiation of curriculum development by program teachers in coordination with the resource teachers. In addition, greater coordination with other bilingual programs in the city would avoid a duplication of efforts in this area;

--Counseling and guidance services should be provided in a more confidential setting. The current bilingual counselor should also be encouraged to further develop his proficiency in Spanish in order to improve these services;

--Encouraging parental participation in program activities by attempting to hold some of its events on weekends or holidays.

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EFFECTIVE TRANSITION OF THE BILINGUAL AND BICULTURAL STUDENT TO SENIOR HIGH SCHOOL (E.T.B.B.S.)

THOMAS JEFFERSON HIGH SCHOOL

Location:	400 Pennsylvania Avenue Brooklyn, New York 11207
Year of Operation:	1981-1982, fourth and final year of funding
Target Language:	Spanish
Number of Students:	165
Principal:	Mr. Mark Weyne
Project Coordinator:	Mr. Richard Vargas

I. CONTEXT

PROGRAM HISTORY

Project "Effective Transition of the Bilingual and Bicultural Student to Senior High School" (E.T.B.B.S.) functions at Thomas Jefferson High School. Fiscal year 1981-1982 constitutes the last of a four-year grant under the provisions of the Elementary and Secondary Education Act (E.S.E.A.) Title VII. Prior to this funded project, Thomas Jefferson High School had been serving its limited English proficiency (LEP) students with English as a second language (E.S.L.) courses. It had also been successful in recruiting some bilingual (English/Spanish) faculty members who were able to offer a variety of subjects, such as native language arts, social studies, mathematics, and science to Spanish-dominant students. The Title VII grant has been instrumental in securing the services of a project director, a bilingual counselor, a resource teacher, six paraprofessional aides, and a bilingual secretary intern. The termination of the Title VII funding will result in the elimination of nine of these positions; the project director

will be reabsorbed as a tax-levy funded social studies teacher, which was his position at Thomas Jefferson High School prior to the E.T.B.B.S. project.

ATTENDANCE AREA AND SCHOOL ENVIRONMENT

The East New York area of Brooklyn, where Thomas Jefferson High School is located, is one of abandonment and decay. The school vicinity consists of mainly run-down, burned-out, or boarded-up buildings, and vacant lots. A block of Pennsylvania Avenue, once considered to be a fashionable "doctors' row," now houses the high school, a nursery school, a fruit stand, and older brownstones in the process of renovation. Few other resources are found in the immediate area.

The poor condition of the housing facilities in the community, in addition to frequent fires contribute to a picture of high instability and absolute poverty. Drug and alcohol abuse, unemployment, and crime complete the view of an unsafe neighborhood that negatively affects student behavior, academic performance, and parental involvement. Although the interior and exterior of the high school are free of graffiti, the frequency of "forced entries" into teachers' offices and classrooms necessitated the installation of steel doors.

Discipline has been a problem in the school, necessitating tightly locked doors and other security measures. For example, to avoid leaving classes unsupervised when teachers are absent, students waiting for substitutes to arrive are required to wait in the auditorium, where supervision can be provided.

II. STUDENT CHARACTERISTICS

The total school enrollment is approximately 3,400 students. Of these, approximately 75 percent are English-dominant. Spanish is spoken at home by approximately 22 percent of the students, and less than 3 percent are French/Creole-speaking. Ethnically the school's students are two-thirds black and one-third Hispanic. Some of the black students are recent immigrants from Haiti and the West Indies. Overwhelmingly, Jefferson students live in the immediate attendance area and walk to school.

Of the 165 participants enrolled in Project E.T.B.B.S. during the 1981-1982 school year, 95 percent are Spanish-speaking students and 5 percent are French/Creole-speaking students from Haiti. More than half of the students in the program are of Puerto Rican background. Dominicans constitute 17 percent of the program enrollment and 11 percent of the students are from Panama. Other Central and South American nationalities are represented in the program. Table 1 presents program students by country of birth.

Hispanic students reported that they used both Spanish and English every day. Most spoke Spanish at home, but many used English when speaking with their friends or with their neighbors.

Characterized by the same conditions that predominate in the attendance area, program students belong to lower class or unskilled blue collar families, many of which receive public assistance. Data gathered with the O.E.E.-developed Student Background Questionnaire in May 1981, indicate that of the students participating in the program that semester,

approximately 55 percent were living in one parent households. A majority of these students were unaware of their father's occupation (70 percent) and level of education (53 percent) as well as lacking similar information concerning their mothers (38 and 40 percent, respectively).

Student Background Questionnaire data also reveal that about one-third of the program students have lived for seven or more years in the United States. Thus, program students vary tremendously in their needs and ability. They range from very limited proficiency in English and in the native language and in the content areas to relative proficiency in both languages and in academic areas.

Staff awareness of the differences between the needs of long term residents and recent immigrants is reflected in the division of E.S.L. classes into "Spanish-dominant" and "English-dominant" student groups.

Table 2 presents program students by sex and grade as reported for 158 students.

TABLE 1

Number and Percentages of Students by

Country of Birth

Language: Spanish

Country of Birth	Number	Percent
Puerto Rico	88	56
Dominican Republic	27	17
Haiti[a]	8	5
Cuba	1	less than 1%
Honduras	5	3
Guatemala	1	less than 1%
Costa Rica	2	1
El Salvador	1	less than 1%
Panama	18	11
Colombia	1	less than 1%
Ecuador	6	4
TOTAL	158	100

[a]French-Creole language

TABLE 2

Number and Percentages of Students by Sex and Grade

Grade	Male N	Percent of Grade	Female N	Percent of Grade	Total N	Column Total: Percent of All Students
9	45	58	32	42	77	49
10	15	41	22	59	37	23
11	9	39	14	61	23	15
12	11	52	10	48	21	13
TOTAL	80	51	78	49	158	100

.Program students are almost evenly divided by sex. The highest percentage of students is in grade 9, while the lowest is in grade 12.

All program students are foreign-born immigrants to the United States. Their educational histories are highly varied. Many have suffered interrupted schooling, some have had little schooling due to lack of opportunities, and a few may have attended school for the first time in this country. Many have received fewer years of schooling than their grade level would indicate and/or are overage for their grade. Table 3 presents students by age and grade.

TABLE 3

Number of Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
14	12	1			13
15	30	4			34
16	26	11	6	2	45
17	9	11	10	4	34
18		6	6	7	19
19		4		4	8
20				3	3
21				1	1
Total	77	37	22	21	157
Students Overage:					
Number	35	21	6	8	70
Percent	45	57	27	38	45

Note. Shaded boxes indicate expected age range.

- Forty-five percent of the students are overage for their grade. The highest percentage of overage students is in grade 10, and the lowest in grade 11.

- Most students are 16 years of age. These students are mostly in grade 9.

III. PROGRAM DESCRIPTION

PHILOSOPHY

Although neither the school nor the bilingual program has formally articulated a philosophy of bilingual education, the E.T.B.B.S program is widely regarded as transitional with the purpose of teaching students to function in English. According to staff, mainstreaming implies acquiring English fluency and being able to fulfill the "necessary requirements for a high school diploma." In an interview, the school principal expressed her feeling that the students should be able to make that transition to English without losing their cultural heritage and stated that program students, as a group, have been culturally the most active. She felt that the program provided students with a positive sense of self-identity. Both she and the program director believed that the program bestowed upon the students a sense of "belongingness" that seems to deter disciplinary problems and promotes academic achievement. (See appendix for a statement of goals presented in the program proposal.)

ORGANIZATION AND STRUCTURE

The E.T.B.B.S. program falls within the department of international studies, and all the program teachers are academically supervised by the assistant principal/department chairman. The program is headed by the project director who reports to the assistant principal in regard to academic matters and to the school principal for fiscal concerns. The project director supervises the program staff (the bilingual guidance counselor, the resource teacher, the bilingual secretary intern, and six educational assistants) and is responsible for staff development, student placement, and parental/

community relations. Program teachers maintain direct relations with the program office for administrative assistance, staff development, supportive services, and materials development.

FUNDING

To provide services to bilingual students, Project E.T.B.B.S. combines three sources of funding: tax-levy, Title VII and Title I of the E.S.E.A. Title VII funds support the positions of the project director, the resource teacher, the bilingual counselor, the bilingual secretary intern, and four paraprofessional assistants (two in mathematics, one in social studies, and one in science). Title I monies support two teaching positions and two paraprofessional assistants in the areas of E.S.L. and native language arts. Tax-levy funds support four teaching positions, one each in E.S.L., mathematics, social studies, and science. The following tables outline funding sources for the instructional and non-instructional components of the bilingual program.

TABLE 4

Funding of the Instructional Component

Subject	Funding Source	No. of Teachers	No. of Classes	No. of Paras	No. of Classes
E.S.L.	Tax levy Title I	3 1	1, 2, 2 5	1	5
Native Language	Title I	1	4	1	
Mathematics	Tax levy Title VII	2	1, 2	2	
Social Studies	Tax levy Title VII	3	1, 1, 2	1	
Science	Tax levy Title VII	1	3	1	

TABLE 5

Funding of the Non-Instructional Component

	Funding Source	Title and Number
Administration & Supervision	Title VII Tax Levy	Project Director A.P. Foreign Languages
Curriculum Development	Title VII	Resource Teacher
Supportive Services	Title VII	Bilingual Guidance Counselor
Staff Development	Title VII	Project Director
Parental & Community Involvement	Title VII	Project Director
Other	Title VII	Project Director

IV. INSTRUCTIONAL COMPONENT

STUDENT PLACEMENT, PROGRAMMING, AND MAINSTREAMING

Eligibility for participation in the program is determined by students' performance on the New York City Language Assessment Battery (LAB), the Interamerican Series, La Prueba de Lectura, and a school-developed assessment in Spanish. The project director also conducts a personal interview with each student, enabling him to make an appropriate grade level and E.S.L. placement. Proper placement, however, is more often the result of recommendations made by the classroom teachers who determine if a student needs a more basic or a more advanced course. Often a student is tentatively placed in a course until either the student or the teacher tells the project director that the placement should be corrected. English-speaking students in need of remediation who meet the other criteria for enrollment in the program are placed in the "English-dominant" E.S.L. sequence.

Specific problems of placement and programming arise when students arrive with foreign transcripts. The project director has had to contact several foreign schools to determine the exact content of a student's educational history.

The program has no formulated criterion to partially or fully mainstream its students. One staff member indicated that students are completely exited from the program, "as soon as they are ready and we feel so." In fact, the decision to mainstream a student seems to be based on students' own perceptions and aspirations. In general, students feel safe within the program and are hesitant to leave it. The overall aim of the staff,

however, is to expedite the acquisition of English-language skills since partial mainstreaming must occur for all students in the upper grades; the program does not have enough upper level content-area courses to offer in Spanish. About 20 upper level students are in this category, taking all of their content-area courses in the mainstream, while continuing to receive supportive services from program staff. The most common type of service they request is assistance from the bilingual guidance counselor in formulating post-high school plans.

According to the project director, parents are typically amenable to the mainstreaming of their children. He states that he has never experienced any resistance to mainstreaming on the part of the parents and that the range of response has been from indifference to strong support.

There is no formal system for following the progress of mainstreamed students. Former program students must act on their own initiative if they feel they are not functioning well in their current placement. The bilingual guidance counselor then tries to have the student return to the program or reassigned to one of the other programs in the school.

INSTRUCTIONAL OFFERINGS

The E.T.B.B.S. program offers six levels of E.S.L. (for both "English-dominant" and "Spanish-dominant" groups), three levels of native language arts, and content-area instruction in mathematics, science, and social studies. Mathematics courses include pre-algebra, algebra I and II, and fundamentals of mathematics I and II offered in both the fall and spring semester. In science, both biology and general science are offered as a

two-semester sequence. Social studies courses include world history I in the fall and world history II, American history I, and Latin American studies in the spring.

Table 6 presents the program's offerings in both fall and spring E.S.L. courses. Native language arts courses are displayed in Table 7 and the content-area courses offered in 1981-1982 are presented in Table 8.

TABLE 6

Courses in English as a Second Language

Fall Courses	Level	# of Classes	Average Enrollment	Funding	Curriculum or Materials
Beginning/ Spanish-dominant	1	2	26	Title I	Teacher prepared; Dixson
Intermediate/ Spanish-dominant	3	2	23	Title I	Reading selections; Dixson
Advanced/ Spanish-dominant	5	1	24	Title I	Reading selections; Dixson
Beginning/ Spanish-dominant	1	1	26	Tax levy	Lado II; Real Stories
Intermediate/ Spanish-dominant	3	1	27	Tax levy	Lado III; Regents workbook
Advanced/ Spanish-dominant	5	1	14	Tax levy	Reading selections; Dixson
Beginning/ English-dominant	1	2	25	Title I	Lado II; Real Stories
Advanced/ English-dominant	5	1	21	Title I	Folktales II
Intermediate/ English-dominant	3	2	20	Title I	Lado III; Regents workbook

TABLE 6 (continued)

Spring Courses	Level	# of Classes	Average Enrollment	Funding	Curriculum or Materials
Beginning/ Spanish-dominant	2	1	25	Title I	Teacher prepared; Dixson
Intermediate/ English-dominant	4	1	23	Title I	Reading selections; Dixson
Intermediate/ Spanish-dominant	4	1	21	Title I	Regents; Dixson 3
Advanced/ English-dominant	6	1	14	Title I	Folktables 2
Advanced/ Spanish-dominant	6	1	15	Title I	Reading selections; Dixson
Beginning/ English-dominant	2	1	17	Title I	Lado II; Real Stories
Beginning/ English-dominant	2	1	20	Tax levy	Lado II; Real Stories
Beginning/ Spanish-dominant	2	1	23	Tax levy	Lado II; Real Stories
Intermediate/ English-dominant	4	1	23	Tax levy	Lado III; Regents workbook
Intermediate/ Spanish-dominant	4	1	22	Tax levy	Lado III; Regents workbook

TABLE 7

Courses in Native Language Arts

Fall Courses	Level	# of Classes	Average Enrollment	Curriculum or Materials in Use
Beginning Native Language Arts	1	1	8	Easy Spanish Reader; Spanish first year
Advanced Native Language Arts	3	1	12	Lengua Española; Leyendas Puertorriqueñas

Spring Courses	Level	# of Classes	Average Enrollment	Curriculum or Materials in Use
Beginning Native Language Arts	1	1	6	Easy Spanish Reader; Spanish first year
Intermediate Native Language Arts	2	2	14	Puntos Críticos; Gramática Española
Advanced Native Language Arts	3	1	16	Lengua Española; Leyendas Puertorriqueñas

TABLE 8

Courses in the Content Areas[a]

Fall Courses	# of Classes	Average Registration
General Science I	2	25
Biology I	1	26
World History I	2	25
Fundamentals of Math I	1	20
Fundamentals of Math II	1	21
Pre-Algebra	1	22
Algebra I	2	10
Algebra II	1	19

Spring Courses	# of Classes	Average Registration
General Science II	2	27
Biology II	1	28
Latin American Studies	2	10
World History II	2	27
American History I	2	26
Fundamentals of Math I	1	20
Fundamentals of Math II	1	21
Pre-Algebra	1	22
Algebra I	2	10
Algebra II	1	19

[a]Spanish is used 100 percent of the time in these courses, which are held five periods each week. Course materials are all in Spanish, and correspond to the mainstream curriculum. With the exception of the materials for the general science I course, the materials are of an appropriate reading level for the students. All courses carry one regular high school credit.

Mainstream Classes

As previously stated, about 10 percent of the program students are taking two or more of their content-area courses in mainstream classes conducted in English. The most popular selections are English 58, speech, American history II, and consumer education. Table 9 presents the mainstream classes in which program students are enrolled.

TABLE 9

Enrollment in Mainstream Classes

Course	No. of Students (Fall and Spring)
English 58	17
Biology 18	6
American History II	12
Speech	15
Meteorology	4
Foods	3
Clothing	4
Child Development	3
Record Keeping	4
Consumer Education	8

Services to Haitian Students

Approximately five percent (8 students) of program participants are French/Creole-speaking students from Haiti. They attend English as a second language classes with other program students and receive guidance

and counseling services from program staff. Since there are no classes offered in French/Creole in the school or in the program, these students attend content-area courses with the mainstream population.

Cultural Relevance

In addition to addressing the linguistic and academic needs of the target population, the courses offered by the E.T.B.B.S. program attempt to maintain and reinforce the cultural identity of the students. The Latin American studies course deals not only with the history of that area but also with the current political issues which concern all the Latin American nations. World history classes emphasize the role of Spain in relation to other European nations as well as in the colonization of the Americas. The American history course includes a unit on immigration emphasizing the movement of Hispanic peoples. The native language arts courses, in addition to developing vocabulary and grammar, stress regional differences of vocabulary throughout Latin America. In advanced native language arts classes, the literature of Latin America is studied.

CLASSROOM OBSERVATIONS

Four different classes were observed by the evaluator: a beginning class in E.S.L.; an intermediate class in native language arts; a world history II class; and a class in Latin American studies. No paraprofessional assistants were present in the classes observed. The project director stated that paraprofessionals help the teachers in the class preparation, and at times pull students out of the class for special tutoring.

Nineteen students were present in the beginning E.S.L. class visited by the evaluator. (The average enrollment for this class was 25 students.) Students received whole-group instruction from one teacher who used English exclusively. When addressing each other, these Spanish-dominant students used Spanish exclusively. When addressing the teacher, Spanish was used 10 percent of the time. The teacher, however, would always respond in English. Flash cards and the blackboards were used to conduct the lesson on auxiliary verbs.

The same teacher conducted the intermediate native language arts class, at which 12 out of 14 students were present. All the students had the opportunity to read aloud selections of prose and drama which were handed out by the teacher. All instruction was given in Spanish, which was the only language heard during the class time.

Only three students were present at the world history II class. (It was later learned that an examination had been given during the previous period; most of the students had left the school after the test.) Although the program maintains that instruction in the content areas is to be offered in Spanish, it was evident that the instructor's language use depended on the needs of the students. The class consisted of a review in which the teacher used the blackboard and asked questions to elicit student participation.

The topic of the Latin American studies class was the history of the process of independence of the Latin American nations. Sixteen students were present. The class began with a short quiz followed by a review wherein

the teacher elicited quick responses from the students. The blackboard and duplicated handouts were used throughout the lesson. All the instruction was in Spanish as were conversations between students and student-teacher exchanges. Numerous grammatical errors were observed in the materials (handouts and quiz) with which the students were working.

V. NON-INSTRUCTIONAL COMPONENT

CURRICULUM AND MATERIALS DEVELOPMENT

The resource teacher is responsible for developing and obtaining new curricular materials for use in program classes. To do this, the resource teacher constantly reviews bibliographies, texts, instructional guides, and supplementary materials to determine their appropriateness for program courses. New materials are developed by the resource teacher alone or in collaboration with other classroom teachers. During 1981-1982, adaptation and translation of English texts and lesson plans in mathematics were developed by the resource teacher.

The duties of the resource teacher also include maintaining and updating the resource center. This center contains a wide and varied collection of books and materials in Spanish to meet students' and teachers' needs in the areas of native language arts and social studies. E.S.L. materials in the resource center include those that are commercially-prepared as well as those obtained from the Board of Education through Title I sources.

The amount of coordination with other Title VII bilingual programs or resource centers is minimal. No materials developed by other programs are in classroom use at Thomas Jefferson. The staff attributed this to their impression that the Office of Bilingual Education is unsuccessful in collecting locally-developed curricular materials because "people might want to get credit for what they do" and the system does not allow for personal recognition.

SUPPORTIVE SERVICES

Program students receive academic, career, and personal counseling from both the school and program personnel. Program counseling is provided by the bilingual guidance counselor who meets with students at least once a semester to plan their coursework. Students are also referred for personal counseling if teachers feel that disciplinary or attendance problems are interfering with academic performance. The bilingual guidance counselor also assists many students in making post-high school plans and makes referrals to other vocational instruction programs in the neigborhood. This career counseling component is frequently used by program students in mainstream classes and remains their only tie to the program. Special problems are referred to the school supportive team which includes a psychologist.

Unfortunately, the setting for counseling hampers the privacy and confidentiality needed for what are often very sensitive situations. The counselor's desk is in the center of a former classroom now shared with the project director and instructional aides.

No visits are made to the homes of program students, since the position of the paraprofessional assigned that task was lost after the second year of Title VII funding. Instead, telephone calls are made to students' homes to discuss discipline and attendance problems. Invitations to attend the parental advisory meeting are also extended to parents by telephone.

STAFF CHARACTERISTICS

Table 10 presents the characteristics of the professional and paraprofessional staffs serving the program students. Two teachers, licensed only in Spanish, have been assigned to teach English as a second language

courses. Out of the three teachers assigned to mathematics classes, only one is licensed to teach mathematics, as well as bilingual mathematics, French, and Spanish; the other two mathematics teachers are licensed only in Spanish. None of the three social studies teachers hold licenses in that subject. In native language arts courses, however, the one teacher is licensed in that area as is the one science teacher, who is licensed in both bilingual general science and bilingual mathematics.

STAFF DEVELOPMENT

The staff development component includes activities held both inside the program and outside the school, as well as university courses attended by both the professional and paraprofessional staffs. It was found that school-wide staff development activities did not necessarily address the specific concerns of the bilingual program students. According to the project director, the needs of the E.T.B.B.S. staff are "definitely" met by the program's staff development activities which include monthly lesson planning workshops held in conjunction with departmental meetings. The project director is in charge of these workshops for instructional improvement but he has confided that it is often difficult to achieve agreement as to the teaching of lessons and methodology among veterans of more than fifteen years of high school teaching.

The project director also coordinates the staff development activities outside the school. During 1981-1982, staff members attended a conference for college advising at Hunter College, a workshop on modern language held at Park West High School, a humanities course held at Martin Van Buren High School, a guidance meeting in Brooklyn, a citywide foreign

TABLE 10

Staff Characteristics: Professional and Paraprofessional Staffs

Function(s)	% Time Spent in Function	Date Hired	Education	Certification and License	Years of Monolingual Experience	Years of Bilingual Experience
Title VII Coordinator	100	10/80	B.A. History M.A. Education Prof. Dipl. Adm./Sup	NYC Reg. DHS Social Studies NYS Reg. DHS Spanish Reg. DHS Bilingual SS	13 Years Social Studies	11 Years
Bilingual Guidance Counselor	100	1/74	B.A. Health Ed. M.A. Guidance	NYC Health Ed. & P.E. NYS Guidance Counselor	7 Years	8 Years
Resource Teacher	100	11/80	B.A. Education	NYC DHS Spanish DHS Math	20 Years	6 Years
E.S.L. Teacher	40	2/81	B.A. Spanish M.A. Spanish	NYC DHS Spanish NYS	9 Years	3 Years
E.S.L. Teacher	40	2/81	B.S. Spanish M.A. Bilingual Ed.	NYC DHS Spanish NYS	1 Year	4 Years
American History Teacher	20	2/80				
Math Teacher	40	2/80				
Math Teacher	20	2/81	B.A. Spanish M.A. Education	NYC DHS Spanish	22 Years	4 Years
Latin American Studies Teacher	20	2/81				
General Science Teacher	40	9/76	B.A. Education	NYC DHS Bilingual General Science	3 Years	11 Years
Biology Teacher	20	9/76	M.S. Education	DHS Bilingual Math		
World History Teacher	40	2/81				
Algebra Teacher	60	2/76	B.A. Modern Language M.A. French M.S. Ed. Admin.	French NYC Spanish NYS Bilingual Math/Math	2 Years	6 1/2 Years
E.S.L. Teacher	20	9/79	B.A. Spanish M.A. Spanish	NYC DHS Spanish Common Br Bilingual	9 Years	5 Years
N.L.A. Teacher	80	9/77				
E.S.L. Teacher	100	9/80	B.A. Spanish	NYC DHS Spanish	8 Years	6 1/2 Years
Bilingual Secretary Intern	100	10/73	2 Years College	Bilingual NYC Secretary Intern	9 Years	9 Years
Educational Assistant	100	2/78	Attending College			

language conference, a teacher conference on Black English at C.U.N.Y., and a conference on E.S.L. sponsored by the Board of Education held at the World Trade Center.

During 1981-1982, paraprofessional staff attended a course in education at Mercy College. Professional staff took courses in intermediate Spanish at the New School for Social Research, a course in peoples and cultures of the world at the New York University Graduate School of Education, and a Spanish course as well as a course in educational administration (leading towards a Master's degree) at Hofstra University.

PARENTAL AND COMMUNITY INVOLVEMENT

According to program staff, the main factor deterring parental involvement in school and program activities is the threatening character of the neighborhood, which induces fears of coming to school functions at night. Employment and familial responsibilities have also prohibited many parents from coming during the day. However, the attendance of twenty program parents at Open School Day and Night was proportionately a far better turnout than the rest of the school.

Parental involvement does increase with programs specifically involving the bilingual students. For example, for the Pan American Day play parents have made costumes and have become involved in other aspects of the production. However, most of their contributions were made at home.

The project director has stated that program students' parents were invited by mail and telephone to participate in the Parent/Student/

Community Advisory Committee and that only two parents came to the first meeting. Consequently, a second meeting was not held.

Information on program activities is disseminated to the community through flyers, posters displayed in neighborhood stores, and word-of-mouth. No adult education classes are offered at the school: interested adults are referred to William H. Maxwell High School.

AFFECTIVE DOMAIN

According to both the school principal and the project director, program students have better attendance and disciplinary records than do students in the school as a whole. Whether this is due to parental pressure to attend school, participation in the bilingual program, or to other factors is not known. However, program students have expressed their appreciation for the program -- that the special care they receive makes them "feel like members of something special."

In addition, a large percentage of program students plan to attend college. Three program students have also been honored during the Awards Night ceremony. Program students have been very active in the Spanish club, "Orientacion Latina" and individual students have participated in baseball, gymnastics, volleyball, and the track team.

VI. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing to evaluate student achievement in 1981-1982.

Students were assessed in English-language development, growth in their mastery of their native language, mathematics, social studies, and science. The following are the areas assessed and the instruments used:

English as a second language -- CREST (Criterion Referenced English Syntax Test, Levels I, II, III)

Reading in Spanish -- Interamerican Series, Prueba de Lectura (Total Reading, Forms BS and AS, Level II, 1950 version)

Mathematics performance -- Teacher-made tests and the New York City High School Title I Criterion Referenced Mathematics Test

Science performance -- Teacher-made tests

Social studies performance -- Teacher-made tests

Native language arts (Spanish) performance -- Teacher-made tests

Attendance -- School and program records

The following analyses were performed:

On pre/post standardized tests of Spanish reading achievement and mathematics achievement, statistical and educational significance are reported in Tables 15 and 18.

Statistical significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant. This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

Educational significance was determined by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.* An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the follow-

*Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

ing effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = low ES

a difference of 1/2 = .50 = moderate ES

a difference of 4/5 = .80 = high ES

The instrument used to measure growth in English language was the Criterion Referenced English Syntax Test (CREST), which tests mastery of specific syntactic skills at three levels. Material at the beginning and intermediate levels of the CREST is broken down into 25 objectives per level, such as present-tense forms of the verb "to be" (Level I), or possessive adjectives and pronouns (Level II). Material at the advanced level (Level III) is organized into 15 objectives, such as reflexive pronouns. At each level, students are asked to complete four items for each objective. An item consists of a sentence frame for which the student must supply a word or phrase chosen from four possibilities. Mastery of a skill objective is determined by a student's ability to answer at least three out of four items correctly.

This report provides information on the average number of objectives mastered, and the average number of objectives mastered per month of treatment by students who received Title I E.S.L. instruction in the fall and spring semesters (Tables 11 and 13). Information is also provided on students' performance at the various test levels. Performance breakdowns are reported in Tables 12 and 14 which contain grade and level breakdowns for students who were pre- and post-tested with the same test level.

Rates of success of students in mathematics, science, social studies, and native language arts courses taught in the bilingual program are reported by grade and semester in the Tables 16 through 23.* In the subject areas, passing rates are also reported by language of instruction. These tables contain the numbers of students reported as taking the relevant courses, the number reported to have passed, and the percent passing, for fall and for spring courses separately. Data are also reported for program students who were taking mainstream courses in the content areas.

Comparison of the attendance rates of program participants with that of the school as a whole are presented by grade in Table 24. This table contains the average rate for the school and for the program students by grade.

*Table 18 presents the results of 20 students' performance on a criterion referenced test of mathematics skills.

TABLE 11

Results of the Criterion Referenced English Syntax Test (CREST):

Number of Objectives Mastered, and Objectives Mastered per Month

(E.S.L. Title I Spanish-speaking students, Fall)

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered[a]	Average Months of Treatment	Objectives Mastered Per Month
9	36	11.3	15.1	3.8	2.8	1.4
10	18	11.7	14.7	3.0	2.8	1.1
11	12	7.2	10.4	3.2	3.1	1.1
TOTAL	66	10.7	14.1	3.4	2.8	1.2

[a]Post-test minus pre-test.

.On the average, students mastered more than one objective per month of instruction in the fall semester.

.Students mastered at least one objective per month at each grade level.

TABLE 12

Performance of Students Tested on the Criterion Referenced English Syntax Test (CREST): Average Number of Objectives Mastered by Grade and Test Level (E.S.L. Title I Spanish-speaking students, Fall)

	LEVEL I					LEVEL II					LEVEL III				
Grade	N	Average Number of Objectives Mastered Pre	Post	Gain[a]	Gain/ Month	N	Average Number of Objectives Mastered Pre	Post	Gain[a]	Gain/ Month	N	Average Number of Objectives Mastered Pre	Post	Gain[a]	Gain/ Month
9	17	7.5	11.2	3.8	1.2	19	14.8	18.6	3.8	1.5	----------				
10	3	7.3	9.3	2.0	0.6	11	13.6	17.6	4.0	1.4	4	9.5	10.5	1.0	0.6
11	1	7.0	11.0	4.0	1.4	1	2.0	3.0	1.0	0.3	10	7.8	11.1	3.3	1.1
TOTAL	21	7.4	11.0	3.5	1.1	31	14.0	17.7	3.8	1.4	14	8.3	10.9	2.6	1.0

Note. Number of objectives for each level: Level I (25), Level II (25), Level III (15).

[a]Post-test minus pre-test.

- On the average, students mastered one objective per month.
- There does not appear to be a consistent relationship between pre-test scores and gains achieved.

TABLE 13

Results of the Criterion Referenced English Syntax Test (CREST):

Number of Objectives Mastered, and Objectives Mastered per Month

(E.S.L. Title I Spanish-speaking students. Spring)

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered[a]	Average Months of Treatment	Objectives Mastered Per Month
9	40	9.0	13.6	4.6	2.9	1.6
10	13	8.4	12.3	3.9	2.9	1.4
11	11	10.6	14.4	3.7	2.9	1.3
12	2	8.0	11.0	3.0	3.1	1.0
TOTAL	65	9.1	13.4	4.3	2.9	1.5

[a]Post-test minus pre-test.

- On the average, students mastered more than one objective per month of instruction, therefore achieving the project's objective.
- Students at each level achieved at least than one objective per month.

TABLE 14

Performance of Students Tested on the Criterion Referenced English Syntax Test (CREST): Average Number of Objectives Mastered by Grade and Test Level (E.S.L. Title I Spanish-speaking students, Spring)

	LEVEL I					LEVEL II					LEVEL III				
		Average Number of Objectives Mastered					Average Number of Objectives Mastered					Average Number of Objectives Mastered			
Grade	N	Pre	Post	Gain[a]	Gain/ Month	N	Pre	Post	Gain[a]	Gain/ Month	N	Pre	Post	Gain[a]	Gain/ Month
9	26	7.3	11.9	4.6	1.6	11	12.5	17.3	4.7	1.6	3	11.0	14.0	3.0	1.0
10	4	5.8	11.0	5.2	1.9	4	10.8	15.0	4.2	1.5	5	8.6	11.2	2.6	0.9
11	2	9.5	19.0	9.5	3.4	1	11.0	19.0	8.0	2.6	8	10.9	12.6	1.8	0.6
12	----------					----------					1	8.0	11.0	3.0	1.0
TOTAL	32	7.2	12.2	5.0	1.8	16	12.0	16.8	4.8	1.6	17	10.1	12.4	2.3	0.8

Note. Number of objectives for each level: Level I (25), Level II (25), Level III (15).

[a]Post-test minus pre-test.

.Students who were tested at Levels I and II mastered more than one objective per month.

.Students at Level III did not master one objective per month of instruction. However, the gains of students at Level III, grade 11 may have been depressed as a result of test "ceiling effect."

TABLE 15

Student Performance on the Prueba de Lectura

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in Native Language Reading Achievement (Forms BS and AS, Level II)

	Pre-Test		Post-Test						
N	Mean	Standard Deviation	Mean	Standard Deviation	Pre/Post Difference	Corr.	t	p	ES
8	56.9	19.9	85.9	6.4	19.0	-0.74	2.5	.04	.97

- Eight* students who were pre- and post-tested with the Prueba de Lectura showed gains that are moderately significant statistically and highly significant educationally.

- The standard deviations indicate that students performed much closer to the mean on the post-test, whereas their scores were more dispersed on the pre-test. The relatively high post-test mean and the high negative correlation indicate that students who scored low on the pre-test showed a considerable gain, and some who scored high may have declined or remained the same. The findings suggest that the test may not be appropriate for the students; it appears to have been too easy at the post-test.

*Note: These represent a small group of students enrolled in basic native language arts (remedial) classes.

TABLE 16

Number and Percent of Students Passing

Teacher-Made Examinations in Mathematics by

Grade and Language of Instruction, Fall

Grade	English N	English Number Passing	English Percent Passing	Spanish N	Spanish Number Passing	Spanish Percent Passing	Total N	Total Percent Passing
9	4	3	75.0	55	36	65.5	59	66.1
10	4	2	50.0	25	13	52.0	29	51.7
11	7	4	57.1	12	5	41.7	19	47.3
12	16	10	62.5	2	2	100.0	18	66.6
TOTAL	31	19	61.3	94	56	59.6	125	60.0

- On the average, 60 percent of the students passed teacher-made examinations in mathematics. Sixty-one percent passed courses taught in English, and 60 percent passed courses taught in Spanish.

- Grade 10 students showed the lowest passing rate (50 percent) in courses taught in English and grade 11 students demonstrated the lowest passing rate (42 percent) in courses taught in Spanish. Grade 11 students achieved the lowest passing rate (47 percent) in general.

- Grades 9 and 12 students showed the highest passing rates (66 percent) overall.

- In courses for which there were at least 25 cases reported, the passing rates ranged from 52 to 65.5 percent.

- There is a tendency for the number of students enrolled to increase by grade in courses taught in English and to decrease by grade in courses taught in Spanish. This occurrence is consistant with the program's mainstreaming philosophy.

- As a group, the results fail to meet the criterion of 65 percent passing set as the program objective.

TABLE 17

Number and Percent of Students Passing Teacher-Made Examinations in Mathematics by Grade and Language of Instruction, Spring

Grade	English N	English Number Passing	English Percent Passing	Spanish N	Spanish Number Passing	Spanish Percent Passing	Total N	Total Percent Passing
9	4	4	100.0	41	24	58.5	42	62.2
10	7	3	42.9	19	12	63.2	26	57.6
11	11	8	72.7	6	4	66.7	17	70.5
12	12	9	75.0	2	1	50.0	14	71.4
TOTAL	34	24	70.6	68	41	60.3	102	63.7

- On the average, 63.7 percent of the students passed teacher-made examinations in mathematics (spring). A higher percentage (70.6) of students passed courses taught in English than courses taught in Spanish (60.3 percent).

- Grade 10 students showed the lowest overall passing rate (57.6 percent) and grade 12 the highest (71.4 percent). By language of instruction, grade 10 achieved the lowest passing rate (42.9 percent) in English and grade 12 in Spanish (50 percent). This latter group was followed by grade 9, for which the largest number of cases was reported. Grade 9 showed the highest rate (100 percent) of passing courses in English and grade 11 in Spanish (66.7 percent).

- In courses for which there were at least 19 cases reported, the passing rates ranged from 58.5 to 63.2 percent.

- As a group, the results fail to meet the criterion of 65 percent passing set as the program objective.

TABLE 18

Student Performance on the

High School Title I Math Skills Program Criterion Referenced Test

Significance of Mean Total Raw Score Differences
Between Initial and Final Test Scores

	Pre-Test		Post-Test						
N	Mean	Standard Deviation	Mean	Standard Deviation	Pre/Post Difference	Corr.	t	p	ES
20	27.0	12.6	39.8	12.2	12.8	0.37	4.1	.001	1.1

- On the average, students pre- and post-tested with the High School Title I Math Skills Program Test showed gains which were highly significant statistically and educationally.

- The standard deviations show that the dispersion of the scores was similar for pre- and post-tests. However, if the low number of cases and the moderate magnitude of the correlation are considered, no inferences can confidently be made about the performance of individuals.

TABLE 19

Number and Percent of Students Passing Teacher-Made Examinations in Science by Grade and Language of Instruction, Fall

Grade	English N	English Number Passing	English Percent Passing	Spanish N	Spanish Number Passing	Spanish Percent Passing	Total N	Total Percent Passing
9	3	3	100.0	38	27	71.1	41	73.1
10	2	1	50.0	19	16	84.2	21	80.9
11	6	5	83.3	9	6	66.7	15	73.3
12	9	7	77.8	3	3	100.0	12	83.3
TOTAL	20	16	80.0	69	52	75.4	89	76.4

- On the average, 76.4 percent of the students passed teacher-made examinations in science (fall). A higher percentage (80) passed examinations in English than in Spanish (75.4 percent).
- Overall, grades 9 and 11 students showed the lowest passing rate (73 percent) and grade 12 students showed the highest (83 percent).
- By language of instruction, grade 10 achieved the lowest rate of passing (50 percent) and grade 9 the highest (100 percent) in courses taught in English. Grade 11 showed the lowest passing rate (66.7 percent) and grade 12 the highest (100 percent) in courses taught in Spanish.
- As a group, the results met the criterion of 65 percent passing set as the program objective.

TABLE 20

Number and Percent of Students Passing Teacher-Made Examinations in Science by Grade and Language of Instruction, Spring

Grade	English N	English Number Passing	English Percent Passing	Spanish N	Spanish Number Passing	Spanish Percent Passing	Total N	Total Percent Passing
9	2	2	100.0	39	21	53.8	41	56.1
10	3	2	66.7	14	8	57.1	17	58.8
11	6	6	100.0	5	2	40.0	11	72.7
12	5	5	100.0	-	-	--	5	100.0
TOTAL	16	15	93.8	58	31	53.4	74	62.1

- On the average, 62 percent of the students passed teacher-made examinations in science (spring). A higher percentage (93.8) passed examinations in English than in Spanish (53.4 percent), although the number of students reported taking science in English was small.
- The aggregated results of courses taught in each language showed a positive relation between grade and passing rate: the higher the grade, the higher the passing rate.
- By language of instruction, grade 10 students showed the lowest passing rate (66.7 percent) in courses taught in English and grade 11 students the lowest (40 percent) in courses taught in Spanish.

TABLE 21

Number and Percent of Students Passing

Teacher-Made Examinations in Social Studies by

Grade and Language of Instruction, Fall

Grade	English			Spanish			Total	
	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing	N	Percent Passing
9	2	1	50.0	42	24	57.1	44	56.8
10	2	1	50.0	18	10	55.6	20	55.0
11	7	4	57.1	10	6	60.0	17	58.8
12	17	11	64.7	2	2	100.0	19	68.4
TOTAL	28	17	60.7	72	42	58.3	100	59.0

- On the average, 59 percent of the students passed teacher-made examinations in social studies (fall). A slightly higher percentage (60.7) of students passed courses taught in English than courses taught in Spanish (58.3 percent), but the number of students reported as taking courses in English was small.

- Grade 10 showed the lowest overall passing rate (55 percent), and grade 12 the highest (68.4 percent). Overall, there was a general tendency for achievement to increase with grade level.

- It should be noted that the expected criterion of success was 65 percent passing and that neither the students taking courses taught in English (60.7 percent) nor those taught in Spanish (58.3 percent) met the expected criterion.

TABLE 22

Number and Percent of Students Passing Teacher-Made Examinations in Social Studies by Grade and Language of Instruction, Spring

Grade	English N	English Number Passing	English Percent Passing	Spanish N	Spanish Number Passing	Spanish Percent Passing	Total N	Total Percent Passing
9	2	2	100.0	49	27	55.1	51	56.8
10	10	6	60.0	27	13	48.1	37	51.3
11	-	-	--	9	3	33.3	9	33.3
12	14	10	71.4	1	1	100.0	15	73.3
TOTAL	26	18	69.2	86	44	51.2	112	55.3

- On the average, 55.3 percent of the students passed social studies courses. Overall passing rates ranged from 33.3 percent in grade 11 to 73.3 percent in grade 12.
- Students showed a higher passing rate in classes taught in English (69.2 percent) than in classes taught in Spanish (51.2 percent), although the number of students reported as taking social studies in English was small.
- Students in grade 11 who were taught in Spanish showed the lowest passing rate (33.3 percent), while students in grade 9 who were taught in English and students in grade 12 who were taught in Spanish showed the highest rates of passing (100 percent). It should be noted that in the categories with the highest rates of passing there was an extremely low number of cases reported.
- The passing rate in courses taught in English (69.2 percent) met the criterion (65 percent passing) set as the program objective. However, the passing rate (51.2 percent) in courses taught in Spanish failed to meet the program objective.

TABLE 23

Number and Percent of Students Passing

Teacher-Made Examinations in Native Language Arts

(Spanish) by Grade, Fall and Spring

Grade	FALL 1981 N	FALL 1981 Number Passing	FALL 1981 Percent Passing	SPRING 1982 N	SPRING 1982 Number Passing	SPRING 1982 Percent Passing	Total N	Total Percent Passing
9	61	43	70.5	71	41	57.7	132	63.6
10	28	17	60.7	31	16	51.6	59	55.9
11	14	11	78.6	12	8	66.7	26	73.0
12	6	6	100.0	5	5	100.0	11	100.0
TOTAL	109	77	70.6	119	70	58.8	228	64.4

- In general, 64.4 percent of the students at Thomas Jefferson High School passed teacher-made examinations in Spanish. A higher passing rate was reported in the fall (70.6 percent) than in the spring (58.8 percent).

- In general, grade 12 students showed the highest passing rate (100 percent); the lowest passing rate was shown by grade 10 students (55.9 percent).

- The passing rate in the fall ranged from 60.7 percent for grade 10 students to 100 percent for grade 12 students. The passing rate in the spring ranged from 51.6 percent for grade 10 students to 100 percent for grade 12 students.

- The results indicate that students' passing rate in the fall (70.6 percent) surpassed the criterion (65 percent passing) set as the program objective. However, the passing rate in the spring (58.8 percent) fails to met this criterion.

TABLE 24

Attendance Percentages of Program Students by Grade

and the Attendance Percentage of the School

Average School-Wide Attendance Percentage: 60.5

Grade	N	Mean Percentage	Standard Deviation	Percentage Difference	z	p
9	75	81.2	15.4			
10	29	79.2	16.3			
11	23	83.2	17.9			
12	21	88.2	6.9			
TOTAL	148	82.1	15.3	21.6	5.38	p<.01

.Program students showed an average attendance rate of 82.1 percent.

.Grade 10 students showed the lowest rate (79.2 percent) of attendance and grade 12 students the highest (88.2 percent).

.The average program attendance rate (82.1 percent) surpassed that of the school (60.5 percent) by 21.6 percentage points. This result met the criterion proposed as the program objective.

SUMMARY OF FINDINGS

English

On the average, students mastered more than one objective per month of instruction as measured by the CREST. Grade 12 students (spring) seemed to achieve the lowest scores and grade 9 students (fall and spring) the highest. Students as a group succeeded in achieving the criterion set as the New York City Title I-E.S.L. program objective (one objective per month of instruction).

Spanish

On the average, students showed gains in their performance on the CIA - Prueba de Lectura, and these gains were moderately significant statistically and highly significant educationally. The relatively high mean and low standard deviation on the post-test, as compared to the low mean and high standard deviation on the pre-test indicates that students who scored low on the pre-test showed a considerable gain, and some who scored high on the pre-test may have declined or remained the same. Significant gains were set as the program objective, and this criterion was met.

On the average, 64.4 percent of the students who took teacher-made examinations in native language arts (Spanish) achieved a passing grade. The passing rate is 11.8 percentage points higher for courses taught in the fall than in the spring.

Content-Area Subjects

On the average, of 227 students who were reported as taking teacher-made examinations in mathematics, 61.6 percent achieved a passing

grade. The passing rate is approximately 1.6 percentage points lower in courses taught in Spanish.

On the average, students pre- and post-tested with the High School Title I Mathematics Skills Program Test showed gains which were highly significant statistically and educationally.

Overall, of 163 students who took teacher-made final examinations in science, 69.9 percent achieved a passing grade. The passing rate is higher in courses taught in English, particularly in the spring semester.

On the average, of 194 students who took teacher-made final examinations in social studies, 57.2 percent achieved a passing grade. Students who took social studies courses taught in English had a higher rate of passing especially in the spring semester.

In general, students who took final examinations in science met the program objective criterion of at least 65 percent passing. However, students failed to meet this criterion in mathematics and social studies.

Attendance

On the average, program students had an attendance rate of 82.1 percent. This percentage surpassed that of the school by 21.6 percentage points.

VII. CONCLUSIONS AND RECOMMENDATIONS

Project E.T.B.B.S. has been implemented with a transitional philosophy in an effort to develop the English-language skills of 165 students of limited English proficiency while simultaneously enhancing their native-language skills and reinforcing their cultural identity. For the Hispanic students participating in the project, this is accomplished through a well-developed program of instruction in English as a second language on three levels (beginning, intermediate, and advanced) for two different student groups -- "English-dominant" and "Spanish-dominant" -- as well as classes in native language arts on three levels. In addition, instruction in mathematics, science, and social studies is offered in the native language. Partial mainstreaming must occur for all students in the upper grades since no upper level content-area courses are offered by the program.

The eight Haitian students enrolled in the program receive instruction in E.S.L. and participate in subject-area classes with the mainstream population. Supportive services such as guidance and personal counseling are offered to all program students by the E.T.B.B.S. staff.

Despite the emphasis on transition, those aspects of the program which support or maintain the students' native language and culture have greatly contributed to the program's success. The project's focus on native language and culture and its culturally congenial services and activities have contributed to a feeling of "belongingness" among the students which has motivated them to attend school, participate in activities, and learn. These maintenance aspects of the program are reinforced by the large percentage of Hispanic students in the school and the neighborhood.

Since this is the last year of Title VII funding, the recommendations focus on providing services for the present target population after the project's end as well as on planning future programs to serve these students.

Program Organization and School Climate

Program teachers fall under the supervision of the international studies department rather than under the respective content-area departments. This organization facilitates the coordination of services to bilingual students, but allows for less communication with their colleagues in other subject-area departments, and may be responsible in part for the subtle resentment, noted by the evaluator, felt by the mainstream faculty towards the program staff. It is the evaluator's impression that the school faculty seems merely to tolerate the bilingual program (the evaluator was told that this was an improvement in attitude over previous years, in part due to the recognition of the achievements made by program students). However, veiled hostility still remains and is manifested in jokes as to what goes on in the bilingual classes. This situation suggests that the project coordinator, with the support of the principal, should play an active role in disseminating the goals and achievements of the program to the mainstream faculty through staff meetings, memoranda, and/or other means.

Staffing

The program should encourage teachers to make every effort to serve as effective linguistic models in both Spanish and English, as student skills need reinforcement in both. Materials should be carefully checked for grammatical and typographical errors before duplication and distribution.

It was observed that several staff members are teaching in areas for which they are not licensed. For example, out of the three teachers assigned to mathematics classes, only one is licensed to teach in that area; another program teacher licensed to teach bilingual mathematics and general science has been assigned to only science classes. The program should therefore try to assign staff members to classes within their area or license. Staff members teaching subject areas in which they are not licensed should be encouraged to develop their professional skills in those areas by participating in college courses or other appropriate training. When possible, attempts should be made to recruit experienced bilingual personnel.

Curriculum and Materials

This component of the program was greatly improved during 1981-1982 with many new Spanish-language texts and literary works acquired and included in the resource center. Yet it would be difficult for the resource teacher alone to adapt these materials for classroom use. Materials development can and should be initiated by program teachers with the coordination of these efforts resting with the resource teacher.

Duplication of efforts in this area could be avoided by greater communication with other bilingual programs in the city serving similar populations. The staff might consider creating informal "networks" of specific content-area bilingual teachers in other programs to share information, materials, and didactic strategies.

Supportive Services

Counseling and guidance services should be provided in a more confidential atmosphere. (One possible solution would be to have the resource

teacher and the guidance counselor switch offices.) If a suitable location cannot be found, then counseling sessions should be offered at times when other faculty members are not present in the office.

In addition, effective counseling rests upon the mastering of language subtleties. The current bilingual guidance counselor should be encouraged to develop more fully his proficiency in Spanish.

Parental Involvement

Insofar as parents tend not to participate in program activities due to work or familial responsibilities, as well as their fears of entering the school's neighborhood at night, the program should consider holding some of its events on the weekends or on holidays to allow for greater participation.

VIII. APPENDIX

PROGRAM OBJECTIVES

Statement of Goals

To continue and expand the development of the bilingual-bicultural program at Thomas Jefferson High School so that it may better meet the special educational needs of the non-English speaking Spanish child. As has been documented (proposal, page 204) Thomas Jefferson High School has a very high concentration of children from low income families.

To research and develop new methods and new curricula in the Spanish language to serve the non-English speaking student.

To provide for the training of personnel in the use and testing of materials to be used in bilingual education programs. This training to extend to teachers, teachers' assistants, and guidance counselors.

To develop a program of activities that will help the target population develop the skills of listening, speaking, reading, writing in the English language as well as in their own native Spanish language.

To expose the students to a greater knowledge of their own cultural heritage, thereby reinforcing their pride in it, while at the same time, furthering an understanding and appreciation of the history and culture of the United States.

To develop stronger ties and cooperation between the community and the school through the participation of the parents in school activities, such as field trips, assembly programs featuring bilingual-bicultural programs (in English and Spanish), school fairs showing their arts and

crafts, typical dishes and fashions. Also, through continuous encouragement of parents to visit the school.

To develop a practical career orientation program to make the students aware of the many employment possibilities for the bilingual-bicultural person.

To stimulate a meaningful cultural exchange between the non-English speaking students and their English speaking peers, thus preventing their separation on the basis of ethnic background and preventing their isolation from the mainstream.